

REMARKS

The application has been amended. Claim 27 has been amended. Reconsideration of the application is respectfully requested.

Claims 27-36 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Independent claim 27 has been amended to address the Examiner's concerns. It is respectfully submitted that claim 27, and the claims which depend therefrom, particularly point out and distinctly claim subject matter which Applicant regards as the invention. Reconsideration is respectfully requested.

The Examiner has indicated that claims 29, 30, 32 and 33 contain allowable subject matter. This determination is gratefully acknowledged.

Independent claim 27 is rejected under 35 U.S.C. §103(a) as being unpatentable over WO 9402195 to Jørgensen in view of U.S. Patent No. 4,036,210 to Campbell et al. (hereinafter "Campbell"). The Examiner contends that Jørgensen teaches all of the claimed subject matter but does not teach dual lumens governed by the same transverse valve. The Examiner then contends that Campbell teaches a dual lumen device where the lumens are opened and closed by a transverse slide valve. The Examiner concludes that it would have been obvious to form the device of Jørgensen with the dual lumens taught by Campbell. This determination is respectfully traversed.

The present invention as set forth in claim 27 is directed to a self-occluding catheter. The catheter includes a body portion having an inlet conduit and an outlet conduit with a transverse bore in fluid communication with the inlet and outlet conduits. An occluding device is movably supported within the transverse bore of the body for movement between a closed position occluding the inlet and outlet conduits and an open position opening the inlet and outlet conduits. A biasing device provides a resilient bias for maintaining the occluding

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device in the closed position. The occluding device is movable against the resilient bias from the closed position to the open position by pressure applied by a fluid passed between the inlet and outlet conduits. Thus, the fluid that is inserted into the occluding catheter applies the pressure to move the occluding device so that that same fluid may be passed from the inlet to outlet conduits.

Turning now to the Jørgensen reference, disclosed therein is a balloon catheter having an inflatable balloon at one end and a fluid inlet at the other end where fluid injected through the inlet is designed to expand the balloon. The catheter includes a pressure relief valve in between the inflatable balloon and the inlet so that when the inflated balloon pressure reaches a predetermined level, further injected fluid from the inlet will escape through the pressure relief valve rather than continuing to inflate the balloon. In order to move the relief valve from its resiliently biased closed position to an open position, it is the back pressure of the inflated balloon which acts upon the bias of the spring to open the valve. Once the valve is open, further injected fluid from the inlet is allowed to escape through the relief valve. Thus, the opening of the relief valve of the Jørgensen device is achieved by the fluid pressure applied by the fluid already in the balloon. It is not, as is the case with the present invention, the injected fluid which is allowed to open the valve and to continue the pass through the valve. In order for the device of Jørgensen to properly operate, it is necessary that the fluid pressure applied to the balloon be used to open the valve, not the pressure of the fluid which is designed to pass through the valve. In fact, until the balloon reaches a predetermined inflation pressure, the valve remains closed even though fluid is passing from the inlet towards the balloon.

The present invention as recited in claim 27 clearly provides an occluding device movable from the closed position to the open position by pressure applied by a fluid passed between the inlet and outlet conduits. The fluid which ultimately passes from the inlet to the outlet channel of Jørgensen does so only after the valve has been opened by back pressure

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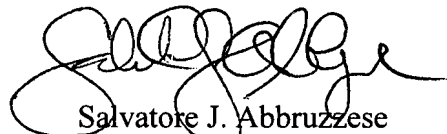
from the preinflated balloon. Therefore, Jørgensen fails to disclose, teach or suggest the structure recited in claim 27.

Campbell is cited solely for its alleged disclosure of a dual lumen device where the lumens are opened with a transverse slide valve. As with the Jørgensen reference, Campbell is deficient in that it fails to show, teach or suggest the use of an occluding device movable from a closed position to an open position upon pressure applied by a fluid which is passed between an inlet and outlet conduit. It is therefore respectfully submitted that claim 27 is patentably distinct over the cited combination.

The application, including claims 27-36, is therefore believed to be in condition for allowance. Favorable action thereon is respectfully solicited.

Should the Examiner have any questions regarding this submission, please contact undersigned counsel at the telephone number listed below.

Respectfully submitted,



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VERSION OF AMENDMENT WITH MARKINGS
TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claim 27 as follows:

27. (Amended) A self-occluding catheter comprising:

a body portion having an inlet port having an inlet conduit extending therefrom, an outlet port having an outlet [port] conduit extending therefrom and a transverse bore in fluid communication with said inlet conduit and said outlet conduit;

an occluding device movably supported within said transverse bore of said body portion for movement between a closed position occluding said inlet and outlet conduits, and [a] an open position opening said inlet and outlet [conduit] conduits; and

a biasing device for resiliently maintaining said occluding device in said closed position;

[wherein a fluid pressure applied to said occluding device overcomes said resilient bias to move said occluding device to said open position.]

said occluding device being movable from said closed position to said open position against said resilient bias upon pressure applied by a fluid passed between said inlet and outlet conduits.

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